

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-5 (Canceled)

6 (Currently amended): A fuel cell system which performs power generation by means of an electrochemical reaction of a fuel gas and an oxidant gas, comprising:

fuel cells each of which comprises an anode which contacts the fuel gas, a cathode which contacts the oxidant gas, and an electrolyte membrane held between the anode and cathode;

a sensor which detects a temperature of fuel cells;

a moisture-adjusted gas generating mechanism which generates moisture-adjusted gas at an arbitrary humidity;

a sensor which detects a wet condition of the fuel cells; and

a programmable controller programmed to:

set a target humidity based on the temperature of the fuel cells and the wet condition of the fuel cells after power generation is halted, the target humidity being a humidity with which water vapor in the moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted and set to be higher when the wet condition of the fuel cells is drier than a predetermined wet region than when the wet condition of the fuel cells is wetter than the predetermined region;

control the moisture-adjusted gas generating mechanism such that the humidity of the moisture-adjusted gas matches the target humidity with which water vapor in the

moisture-adjusted gas does not condense when supplied to at least one of the anode and cathode after power generation in the fuel cells is halted; and

control the moisture-adjusted gas generating mechanism to supply the moisture-adjusted gas adjusted to the target humidity to at least one of the anode and cathode after power generation in the fuel cells is halted.

7 (Previously presented): The fuel cell system as defined in Claim 6, wherein the controller is further programmed to modify the target humidity according to the wet condition of the fuel cells, which varies during the supply of moisture-adjusted gas by the gas generating mechanism, and to control the gas generating mechanism such that the humidity of the moisture-adjusted gas matches the modified target humidity.

8 (Previously presented): The fuel cell system as defined in Claim 7, wherein the controller is further programmed to control the moisture-adjusted gas generating mechanism such that when the temperature and the wet condition of the fuel cells reach a predetermined state of equilibrium, the supply of moisture-adjusted gas is halted.

9 (Previously presented): The fuel cell system as defined in Claim 6, wherein the sensor which detects the wet condition of the fuel cells is constituted by a sensor which measures electrical resistance between the anode and cathode.

10-17 (Canceled)